

93
Cont 16 and said reflector plate is extended to said lower portion of said lamp so as to cover said lower
17 portion of said lamp which is opened.

93 1 4 (amended). A liquid crystal display module according to claim 3, wherein said support
2 member is made of non-rigid material.

REMARKS

Claims 1-4 are currently pending in the application. The Examiner has rejected claims 1-4 and objected to the specification and to claims 2 and 4 for minor informalities. In addition, the Examiner has noted that the drawings are acceptable subject to correction of minor informalities. By this amendment, claims 2 and 4 are amended. The specification is also amended. These amendments are made for clarification purposes and to correct minor typographical and grammatical errors and not for patentability reasons. Marked-up versions of the amended specification and claims are also attached on separate sheets. No new matter is added.

Reconsideration of the rejected claims, in view of the above amendments and the following remarks, is respectfully requested.

Specification

Applicant requests that the specification be amended as set forth above. In particular, Applicant has corrected those portions of the specification that the Examiner pointed out as requiring clarification. At page 7, lines 4 and 6, the side plate is now correctly identified as element 22 as can be confirmed by reference to FIGS. 1 and 2.

Amendments to Claims

Applicant requests that claims 2 and 4 be amended as set forth above. Claim 2 was amended to clarify that the upper surface, side surface and lower surface of the light guide plate correspond to the upper plate, side plate and lower plate of the lamp cover, respectively. Support for this amendment is provided at least at page 7, lines 3-8 and at FIGS. 1-2. Claim 4 is amended to remove the excessive gaps between the words in the last line. No new matter is added.

Objections to Claims

Claim 2 was objected to because of informalities at page 16, lines 1 and 8. As such, claim 2 is amended for additional clarity to incorporate the Examiner's suggested revision to clarify the language to read "...said upper plate, side plate and lower plate of said lamp cover, ..." and to read "...is prevented from coming into contact with said lower surface...." In addition, claim 4 was objected to because the last sentence had too many gaps between the words. As stated above, that claim has now been amended to correct this typographical oversight. Accordingly, Applicant requests that the objections to claims 2 and 4 be withdrawn.

§ 112 Rejections

Claim 2 was rejected under 35 U.S.C. § 112 as being indefinite based on a lack of antecedent basis for the limitation "said upper, side." As amended, claim 2 now provides sufficient antecedent basis for this limitation and the § 112 rejection of claim 2 should be withdrawn.

§ 102(e) Rejections

Claims 1-4 were rejected under 35 U.S.C. § 102(e) as being anticipated by Lee et al., U.S. Patent No. 6,295,105 (issued September 25, 2001). Applicant respectfully traverses these rejections and submits that these claims are novel and patentably distinct from the prior art references and therefore should be allowed.

To reject a claim under 35 U.S.C. § 102, the Examiner must identify a single reference that discloses, either explicitly or implicitly, all of the features of the claimed invention. To this end, the Examiner asserted that Lee shows all of the features of claims 1-4. Applicant respectfully traverses these rejections and asserts that the Examiner's reliance on Lee in this case is misplaced.

The present invention teaches a liquid crystal display (LCD) module in which a lamp cover and rear reflector plate have an improved coupling and structural arrangement so as to prevent the "wrinkling appearance" and "light leakage" that are common in conventional systems. In particular, the LCD of the present invention does not require a lower plate of a lamp cover. As such, the rear reflector plate is not inadvertently pressed against the lamp cover in such a way that may cause the "wrinkling appearance" that is common in conventional systems. Moreover, because the rear reflector plate of the present invention is extended toward the lower surface of a lamp – without the need for any additional coupling between the lamp cover and the reflector plate – a gap is prevented from forming between the rear reflector plate and the lamp cover. This prevents light leakage as will occur in conventional systems.

In stating the rejection of claim 1, at pages 3-4 of the Office Action, the Examiner asserts that Lee discloses each of the elements recited in the claim. However, the Examiner has misinterpreted the teachings of Lee because Lee does not teach a lamp cover that is bent once in a configuration such that a lower portion of the lamp is "opened." See FIG. 9 of Lee wherein the lamp cover 124 is bent multiple times and in fact covers all surfaces of the lamp 118. To make up for the deficiencies of Lee in this regard, the Examiner mistakenly asserts that the so-called "opening holes" of Lee cause the "lower portion of the lamp being opened." (See Office Action, page 3). The Examiner cited to Col. 6, line 42 of Lee as support for that assertion. However, as seen in FIG. 9

of Lee, even the presence of these “penetrating holes” on the lamp cover 124 do not cause the lamp 118 to be “opened” as that term is used and defined in the present invention. (See, e.g., page 7, lines 6-8 and lines 9-11.) That is, the lamp 118 remains covered by the lamp cover 124 on its lower surface, and the lower portion of the lamp 118 is not “opened.”

Based on at least the foregoing differences between the teachings of Lee and claim 1 of the present invention, Applicant respectfully requests that the rejections of claim 1 be withdrawn and that claim 1 be passed to allowance.

As to claim 2, the Examiner asserts that Lee discloses each of the elements recited in the claim. However, the Examiner has again misinterpreted the teachings of Lee because Lee does not teach a lamp cover that is bent once in a configuration such that a lower portion of the lamp is “opened.” As recited in claim 2 herein, the lamp cover is bent twice such that it covers the upper and side portions of the lamp, but the lower portion of the lamp remains “opened.” As such, it is the rear reflector plate that is beneath the lower portion of the lamp. This is depicted in FIGS. 4 and 5 and is described at page 11, lines 15-16 of the specification. On the other hand, in Lee the lower surface of the lamp cover 124 encloses three sides of the lamp 118 (see FIG. 9 of Lee). In fact, the invention disclosed in Lee cannot physically match the claimed invention because, as seen by FIG. 9 of Lee, the lower plate of the lamp cover 124 encloses the lower portion of the lamp 118 such that it is not and cannot be “opened” as claimed herein.

Based on at least the foregoing differences between the teachings of Lee and claim 2 of the present invention, Applicant respectfully requests that the rejections of claim 2 be withdrawn and that claim 2 be passed to allowance.

As to claim 3, similar arguments as stated above apply. Again, as for claims 1 and 2, the

invention disclosed by Lee does not teach that the lower portion of the lamp remains “opened” since the upper and side plates of the lamp cover in fact only cover the upper and side portions of the lamp. (See FIG. 9 of Lee.) Moreover, Lee does not teach a square mold frame that has an open bottom surface so that the rear reflector plate is exposed to the outside as claimed herein in claim 3. In fact, as seen clearly from FIGS. 8 and 9 of Lee, the rear reflector plate 122 is not exposed to the outside as claimed in claim 3 herein. Instead, the rear reflector plate 122 is enclosed by the lamp cover 124 and the back cover 134. (See FIGS. 8 and 9 of Lee.) As such, the buffer member 136 of Lee is by definition not the same as the light guide plate support member of claim 3 herein.

Based on at least the foregoing differences between the teachings of Lee and claim 3 of the present invention, Applicant respectfully requests that the rejections of claim 3 be withdrawn and that claim 3 be passed to allowance.

The rejection of dependent claim 4 is equally misplaced since that claim depends from independent claim 3 that is distinguishable from the applied prior art reference as stated above.

Based on the amendments and arguments presented herein, Applicant respectfully requests that all the outstanding rejections and objections over claims 1-4 be withdrawn and that the Examiner pass those claims to allowance.


Conclusion

All of the stated grounds of objection and rejection have now been properly traversed, accommodated or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicant believes that a full and complete response has been made to the outstanding Office Action. If the

Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment is respectfully requested.

Respectfully submitted,



Hae-Chan Park
Registration No. 50,114

Date: February 5, 2003

McGuireWoods, LLP
1750 Tysons Boulevard, Suite 1800
McLean, VA 22102-4215
Telephone: 703.712.5365
Fax: 703.712.5280

Marked-Up Version of Claims

The following is a marked-up version of amended claims 2 and 4.

2 (amended). A liquid crystal display module comprising:

a lamp;

a lamp cover which is bent twice so as to define an upper plate, a side plate, and a lower plate thereof, and which covers an upper portion and side portion of said lamp, said lamp cover being arranged to reflect a light produced from said lamp;

a light guide plate having an upper surface, a side surface and a lower surface thereof corresponding to said upper plate, side plate and lower plate[s] of said lamp cover, respectively, said light guide plate being arranged to a side of said lamp cover, said light guide plate receiving a light produced from said lamp through said side surface thereof and transmitting said light toward said upper surface thereof; and

a rear reflector plate arranged at a lower surface of said light guide plate and which directs toward said upper surface of said light guide plate a light being leaked through said lower surface of said light guide plate,

wherein said lower plate of said lamp cover is prevented from [being]coming into contact with said lower surface of said light guide plate so as to allow said lower portion of said lamp to be opened, and said reflector plate is extended to said lower portion of said lamp so as to cover said lower portion of said lamp which is opened.

4 (amended). A liquid crystal display module according to claim 3, wherein said support member is made of non-rigid material.

Marked-Up Version of Amended Specification

Please replace the paragraph at page 7, lines 6-8 with the following:

Here, the upper plate 21 and the [lower]side plate 22 of the lamp cover 20 correspond to an upper surface 32 and a side surface 31 of the light guide plate 30, respectively, and are shaped as an inverse L, allowing the lower surface of the lamp 1 to be opened.

\\COM\177318.1